# New Feature Plan

# -Group Fri09grape1-

• Interview Question

Name: Email:

- 1. Have you ever done any teamwork project in your life?
- 2. For communication, did you use any teamwork-driven communication tools? If yes, in your opinion what is the best feature on that communication tool and why?
- 3. Is there any feature from your communication tool that you wish that can be improved? If yes, what & how do you wish the feature can be improved?
- 4. If you can add any feature that you think will improve your communication with your team members, what would it be? And why?
- 5. How often do you use communication tools to complete teamwork/projects?
- 6. What do you think is the must "have" feature of this teamwork-driven communication tool?
- 7. Have you ever dropped/quit using a certain communication tool? If yes, what is the reason behind that?

## [Requirements] Elicitation

Interview 1

Name: Zane van Eck

Email: <u>zan.vaneck@gmail.com</u>

1. Have you ever done any teamwork project in your life? If yes, how often.

Yes, I do one at least once every term at uni.

2. For communication, did you use any teamwork-driven communication tools? If yes, In your opinion what is the best feature on that communication tool and why?

Yes. Facebook messenger is my communication tool of preference. The feature that I like the best is the ability to send polls and I believe that this is a feature that should be included on any teams-based communication tools.

3. Is there any feature from your communication tool that you wish that can be improved? If yes, what & how do you wish the feature can be improved?

The ability to schedule meetings and set reminders.

4. If you can add any feature that you think will improve your communication with your team members, what would it be? And why?

The ability to schedule meetings and set reminders

- 5. How often do you use communication tools when completing teamwork projects? It increases as the deadline for a project approaches initially not so much, but as the deadline is near then use multiple times a day.
- 6. What do you think is the must "have" feature of this teamwork-driven communication tool? It is widely used and accessible on a range of devices.
- 7. Have you ever dropped/quit using a certain communication tool? If yes, what is the reason behind that?

No.

#### Interview 2

Name: Nadya Ulibasa Sitorus Email: <u>nadyausitorus@gmail.com</u>

- 1. Have you ever done any teamwork project in your life? **Yes, last term.**
- 2. For communication, did you use any teamwork-driven communication tools? If yes, In your opinion what is the best feature on that communication tool and why?

The last team project, I use Microsoft teams, our team was divided into several smaller subgroups. That's why I feel like Teams is most convenient for the team because they have rooms in each bigger 'team' which makes it easier when you only want to do calls with specific people. Instead of using chat, they have some kind of "timeline" which makes things more easily read and tidy.

3. Is there any feature from your communication tool that you wish that can be improved? If yes, what & how do you wish the feature can be improved?

It would be nice if people can put their personal information on teams instead of just their name and email. Like a timeline of their personal page. Maybe??

4. If you can add any feature that you think will improve your communication with your team members, what would it be? And why?

Sometimes people already read our post, but they are not answering, so it would be helpful when you can see who is already reading our post.

- 5. How often do you use communication tools to complete teamwork/projects? Almost every day and getting more intense when closing in on a date time.
- 6. What do you think is the most "have" feature of this teamwork-driven communication tool?

  A group call and a tidy file sharing method. I think that's the bare minimum of a teamwork-driven communication.
- 7. Have you ever dropped/quit using a certain communication tool? If yes, what is the reason behind that?

Yeah, because no one was using that app, so there's no use using it anymore. When I want to sign in again it has a weird requirement, so I did not sign in again.

#### Interview 3

Name: Julian

Email: tomasela1010@gmail.com

1. Have you ever done any teamwork project in your life?

I am doing a teamwork project at the moment in one of my courses.

2. For communication, did you use any teamwork-driven communication tools? If yes, In your opinion what is the best feature on that communication tool and why?

Yes, for this project I am using Microsoft teams, and in my opinion, Microsoft Teams is great at creating a virtual meeting since you can schedule the meeting.

3. Is there any feature from your communication tool that you wish that can be improved? If yes, what & how do you wish the feature can be improved?

Yes, about the scheduled meeting, I hope that it can reminder the person who will be joining the meeting one day before from the app or from the email.

4. If you can add any feature that you think will improve your communication with your team members, what would it be? And why?

Schedule Message means that I can send a massage in a specific and schedule time without sending it in that moment. Since sometimes there is a task divided for every member then this send later feature can be a great reminder for team members to work on the task or update the teams what are they working on.

5. How often do you use communication tools to complete teamwork/projects?

#### Most of the time for communicate with each team member

6. What do you think is the most "have" feature of this teamwork-driven communication tool?

A group call for meeting and a task board so that everyone knows what they are doing.

7. Have you ever dropped/quit using a certain communication tool? If yes, what is the reason behind that?

Yes, WeChat since its simple but it doesn't have some feature that is convenience for working as a team.

## [Requirements] Analysis & Specification - Use Cases

#### • Interview 1

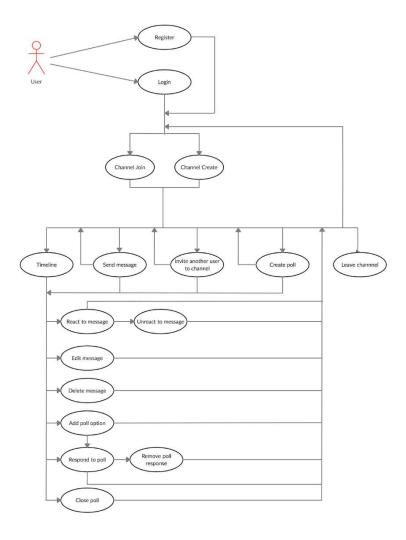
# 1. Ability to send polls within a channel

- User Stories: As a user of "flockr", I want to be able to send polls to channel members so that team members can easily express their thoughts on a certain topic without having to send a message.
- User Acceptance Criteria:
  - o Polls can be titled with a question or statement. This title should be less than 200 chars.
  - o Poll titles can be edited
  - o Polls can be deleted
  - o All members of the channel can vote in a poll
  - The creator of the poll can decide whether it is "closed" or "open" (ie. if channel members other than the creator can add poll responses)
  - o Poll responses should be 100 chars or less
  - When displaying the poll results, it will show who has voted and for which response
  - o The poll will appear in a separate tab from the page of the channel
  - o The creator of the poll can decide the number of responses a member can give in the poll
  - o Channel members can remove/change their responses to a poll (but this will not remove the option from the list of available voting options)
  - Once an option has been added to the poll responses it cannot be deleted/ edited, even if no one has voted for it

#### 2. Ability to set reminders within a channel

- User Stories: As a user of "flockr", I want to be able to set a reminder within a channel so that team members can receive notifications/ reminders for a certain topic.
- User Acceptance Criteria:
  - o Reminders need a title, with a max length of 100 chars
  - Reminders can be scheduled for a given date and time, and also be set to last a period
    of time
  - o Only the creator of a reminder can edit it
  - o The creator of a reminder or a channel owner can delete it
  - Within a channel, members should be able to view upcoming reminders and current reminders
  - o A "reminders" tab will be at the top of a channel, this is where the reminders will be seen
  - o Inside of this reminders tab is where members could add/edit/delete their reminders
  - o A reminder will remain in current reminders for the given period, or until every member of the flockr channel has seen it
  - o There is an option to add a description of up to 1000 characters in the reminder

Please note: The following use case diagram does not contain all the relevant features and links that flockr contains (eg. option to log out, ability to create new channels at any time, etc). This use case diagram is meant to communicate the poll feature within a channel.



# [Requirements] Validation:

# **Comment Interview 1**

Yes, this use case diagram accurately represents the functionality of a poll feature that I would like to see in more teams-based communication apps.

#### • Interview 2:

## 1. Has smaller rooms in each bigger 'team'

#### o <u>User Stories:</u>

As a user of "flockr", I want to be able to have multiple rooms so that team member can communicate internally between each member of their sub-groups.

# o <u>User Acceptance Criteria:</u>

- The room list is below and indented from the channel list
- Create room only available once user becomes a member of the channel
- A button of "+Room" is placed on the right side of the channel to create a new room
- A name room box is asked to be filled to create a new room
- A list of members from the channel to be invited appears once a new room is created, member can only be invited
- The room cannot have more than 10 people inside it
- In the room, the system works as a "chat room"

#### 2. Add a timeline section

#### o User Stories:

As a user of "flockr", I want to be able to post important thing on timeline so that everyone will see the announcement and can commented on it.

#### o <u>User Acceptance Criteria:</u>

- Once a channel is created, a timeline section is automatically created
- Timeline works differently as rooms, in timeline member use a method "post" while in rooms member user a method "chat"
- In the timeline, members can post anything, and a notification will be sent to every member of the channel
- In each post, a button to reply placed on the upper-right side of the post
- Member can reply with "reaction" or with text

#### 3. Put their personal information on profile

#### o User Stories:

As a user of "flockr", I want to have my personal page so that I can post my key moment in life in that page and people can know me deeper personally.

#### o <u>User Acceptance Criteria:</u>

- When profile page is clicked, a section "about" appears on the right side of profile page
- When the "about" section is clicked, it shows boxes to be filled, such as education, life events and workplace.

Users can leave the details empty or fill it in with their personal details.

## 4. See who is already reading our post.

#### o User Stories:

As a user of "flockr", I want to be able to see the member who have seen my post so that I can keep updated of my post.

## o <u>User Acceptance Criteria:</u>

- After sending a message, the system will show a "..." in the upper-right side of the message to the sender.
- When that button is clicked, the sender can see how many people has seen that message and the member who has seen the message

#### 5. A tidy file sharing method

#### o User Stories:

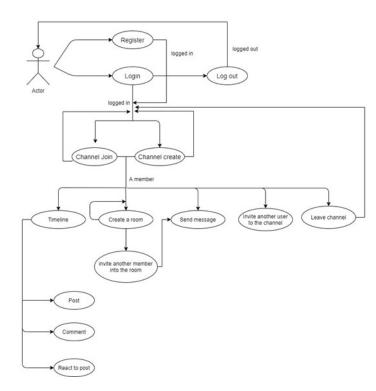
As a user of "flockr", I want to be able share file and keep track of those file so that when I need it, I can find it easily.

#### o <u>User Acceptance Criteria:</u>

- A "files" section exists on the top part of a room page in that channel.
- That file section contains all the documents that have been sent to a specific room.
- The files include anything other than a message such as document, pdf, picture.
- On the right side of each file, exist the date when the file is uploaded to a room.

## [Requirements] Validation:

# Interview 2 use cases:



# **Interview 2 comment:**

The diagram model has pretty much answered and fulfilled all the features that were discussed during the interview. It shows a clear picture of the layers of different actions in the program. An explanation to each feature would be an excellent addition to give an even more detailed picture for the user.

#### Interview 3

# · Scheduling a meeting.

#### o User Stories:

As a user of "flockr", I want to be able to schedule a meeting so that the other member who are invited to the meeting can know in advance when the schedule will be.

# o *User Acceptance Criteria:*

- Choose one of the channels that I already join in.
- The system will show all the member in the channel and a message box
- Beside the message box there is a "Schedule a meeting" button
- Click that button then the system will show a calendar
- Choose the date and time when the meeting is going to occurred
- Then the system will send a reminder to every member of the channel through their email.

#### · Schedule message.

#### o User Stories:

As a user of "flockr", I want to be able to send a message in a schedule time so that it can be used as a reminder or an update through the team member.

#### o <u>User Acceptance Criteria:</u>

- Choose one of the channels that I already join in.
- The system will show all the member in the channel and a message box
- Beside the message box there is a "Schedule Message" button
- Click the button then the system will show a message box and a time box.
- Writing the message in the message box and set the time when I want to send the message.
- The message cannot be more than 1000 length
- Then the system will keep the message and put a timer until the given time
- After the timer ends then the system will send the message through the message box.

#### · Task Board.

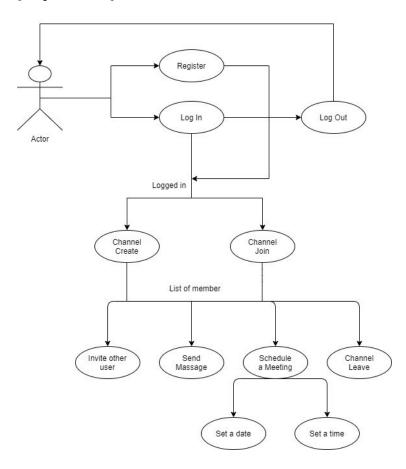
#### o *User Stories*:

As a user of "flockr", I want to be able to have a task board so that every team member knows what their task or a job is.

#### o <u>User Acceptance Criteria:</u>

- Choose one of the channels that I already join in
- The system will show all the member in the channel and a message box
- Beside the list of the members there is a button "Task Board".
- Click the button, then the system will show a new interface for a user to write a task on and assess someone to the task.

# [Requirements] Validation:



# **Comment for interview 3:**

The graph solved the problems that I have with the communication tools. I feel like the graph clearly describes the steps for me to add a schedule meeting. So, from this graph I can have a big picture on how the system works. However, it will be great to have a little detail on what will happen next after setting up the date and time.

# [Design] Interface Design

# Interview 1 "Polls" Feature

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description
channel/poll/add	POST	{token, channel_id, poll_name, is_open, max_vote}	{poll_id}	InputError 1. Poll_name is not between 0 and 200 characters	Given a channel_id, create a poll with poll_name as its title, and authorised user as its owner, that is either "open" or "closed". Max_vote is the a max number of times a user can vote
channel/poll/edit	PUT	{token, channel_id, poll_id, pollnew_name}	8	InputError 1. Pollnew_name is not between 0 and 200 characters 2. Poll_id do not exist 3. Channel_id do not exist  AccessError 1. authorised user is neither the owner of poll, owner of channel, owner of flock	Given a poll_id, rename the title of the poll to new_name in a channel with ID channel_id
channel/poll /delete	POST	{token, channel_id, poll_id}	8	InputError 1. Poll_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is neither the owner of poll, owner of channel, owner of flock	Remove a poll with ID poll_id, in the channel with ID channel_id

channel/poll/open	PUT	{token, channel_id, poll_id}	8	InputError 1. Poll_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is neither the owner of poll, owner of channel, owner of flock	Given a poll with ID poll_id in a channel with ID channel_id, set its status as "open"
channel/poll/close	PUT	{token, channel_id, poll_id}	8	InputError 1. Poll_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is neither the owner of poll, owner of channel, owner of flock	Given a poll with ID poll_id in a channel with ID channel_id, set its status as "closed"
channel/poll/ details	GET	{token, channel_id, poll_id}	{polls}	InputError 1. Poll_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is not a member of the channel	Given a poll with ID poll_id in a channel with ID channel_id, return basic data of the poll
channel/poll/ all	GET	{token, channel_id}	{poll_data}	InputError 1. Channel_id do not exist  AccessError 1. authorised user is not a member of the channel	Given a channel with ID channel_id, return the data of all poll available

channel/poll/option/add	POST	{token, channel_id, poll_id, opt_string}	{opt_id}	InputError 1. Poll_id do not exist 2. Channel_id do not exist 3. opt_string has more than 100 char  AccessError 1. authorised user is not the owner of poll,	Given a poll with ID poll_id in a channel with ID channel_id, create an option, with opt_string as its name, and with ID of opt_id
channel/poll/option/vote	POST	{token, channel_id, poll_id, opt_id}	8	InputError 1. Poll_id do not exist 2. Channel_id do not exist 3. opt_id do not exist 4. AccessError 1. authorised user is not a member of the channel 2. authorised user has voted to the option 3. authorised user has exceed the maximum number of votes	Given a poll with ID poll_id n a channel with ID channel_id, add a vote to the option with ID of opt_id
channel/poll/option/unvote	POST	{token, channel_id, poll_id, opt_id}	8	InputError 1. Poll_id do not exist 2. Channel_id do not exist 3. opt_id do not exist 4. AccessError 1. authorised user is not a member of the channel 2. authorised user has not vote option with ID of opt_id	Given a poll with ID poll_id n a channel with ID channel_id, remove a vote from the option with ID of opt_id

Polls = list of dictionaries, where each dictionary contain {poll\_id, voter\_data}
Voter\_Data = a list of dictionaries, where each contain {opt\_id, voters, is\_user\_voted}
Voters = a list, which contain the u\_id of users who have voted certain option
is\_user\_voted = show if the authorised user has voted or not

# Interview 3 "Schedule" Feature

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description
channel/schedule	POST	{token, date, channel_id, email}	8	InputError 1. date given was in the past compared to the system time  AccessError 1. authorised user is not a member of the channel	Given a channel with ID channel_id, create an email which contain a reminder of the time of an event given by date

date = a dictionary containing keys, such as {day, month, year, time\_start}, where day, month, year are in
integer, and time\_start is the time of the event

# Interview 2 "About" Feature in User Profile

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description		
user/profile/about	POST	{token, workplace, education, life_event}}	{}		Update the information of the authorised user in regards of his/her workplace, education and life events.		
workplace, education, life event are strings							

# Interview 3 "task board" Feature

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description
channel/task/add	POST	{token, channel_id, task_content, due_time, priority}	{task_id}	InputError 1. Task_content is not between 0 and 200 characters. 2. Invalid Channel id. 3. due_time can't be translated by datetime lib 4. priority is not one of {low, moderate, high} AccessError: Authorised user is neither the owner of channel, owner of flock	Given a channel_id, create a task with task_content , and only owners can create tasks. Due_time should be passed in, in the formate of datetime lib. Priority indicates the importance of the task, which is one of {low, moderate, high}

channel/task/assign	POST	{token, channel_id, task_id, user_id}	8	InputError 1. user_id doesn't exist. 2. task_id do not exist 3. Channel_id do not exist  AccessError 1. authorised user is neither owner of channel, owner of flock	Given a task_id, having checked with channel_id and token, then the task will be assigned to the user with the user_id.
channel/task /delete	POST	{token, channel_id, task_id}	0	InputError 1. Poll_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is neither owner of channel, owner of flock	Remove a task with ID task_id, in the channel with ID channel_id
channel/task_board/clear	DELETE	{token, channel_id}	{}	InputError 1. Channel_id do not exist  AccessError 1. authorised user is neither owner of channel, owner of flock	Clear all the tasks on the task_board within a channel.
channel/task/ details	GET	{token, channel_id, task_id}	{task}	InputError 1. task_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is not a member of the channel	Given a task with ID task_id in a channel with ID channel_id, return basic data of the task

Task\_board = list of dictionaries, where each dictionary contain {task\_id, task\_content, priority, due\_time, assignees, create\_time}

Assignees = a list of user\_id

Task\_content = a string which contains the description of the task

priority = indicates the importance of the task.

Due\_time, create\_time = stored in the format of datetime lib.

# Interview 3 "sub-group" Feature

Function Name	HTTP Method	Parameters	Return Type	Exceptions	Description
channel/teams/create	POST	{token, channel_id, team_name, max_num}	{team_id}	InputError 1 Invalid Channel id. AccessError: Authorised user is neither the owner of channel, owner of flock	Given a channel_id, create a team with team_name , and only owners can create teams.
channel/teams/delete	POST	{token, channel_id, team_id}	8	InputError 1. team_id do not exist 2. Channel_id do not exist  AccessError 1. authorised user is not the owner of the team	Given a team_id, and only the owner of the team can dissolve the team.

channel/teams /show_all	GET	{token, channel_id}	[{team1}, {team2}, ]	InputError 1. Channel_id do not exist  AccessError 1. authorised user is not owners of the channel or owners of flockr.	Show details for all the teams within the channel.
channel/team/invite	POST	{token, channel_id, team_id, user_id}	8	InputError 1. user_id doesn't exist or is not in the channel. 2. team_id do not exist 3. Channel_id do not exist  AccessError 1. authorised user is not the owner of the team 2. Team member >= max_num.	Only the owner of the team could invite the channel member into the team.
channel/team/ details	GET	{token, channel_id, team_id}	{team}	InputError 1. team_id do not exist 2. Channel_id do not exist AccessError 1. authorised user is not a member of the team	Given a team with ID team_id in a channel with ID channel_id, return basic data of the team
channel/team/remove	POST	{token, channel_id, team_id, user_id}	8	InputError 1. user_id doesn't exist or is not in the team. 2. team_id do not exist 3. Channel_id do not exist AccessError 1. authorised user is not the owner of the team	Only the owner of the team could remove team members out of the team.

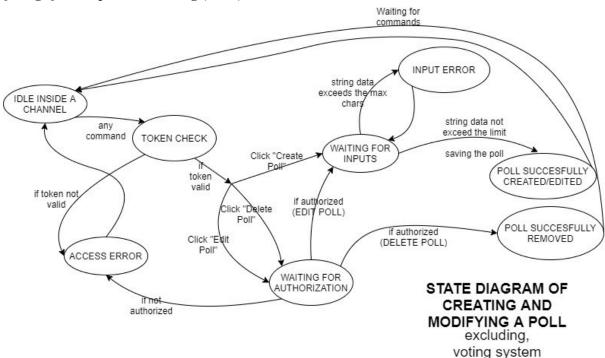
 $Teams = list \ of \ dictionaries, \ where \ each \ dictionary \ contain \ \{team\_id, \ owner\_id, \ members\_id, \ create\_time, \ team\_name, \ max\_num \ \}$ 

Members\_id = a list of user\_id

Team\_name = a string which contains the name of the team
Max\_num = indicates the capacity of the team.

create\_time = stored in the format of datetime lib.

# [Design] Conceptual Modelling (State)



# STATE DIAGRAM OF CREATING AND MODIFYING A TASK BOARD

